

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 07-116020  
(43)Date of publication of application : 09.05.1995

(51)Int. Cl. A46B 13/02  
A61C 17/22  
A61C 17/00

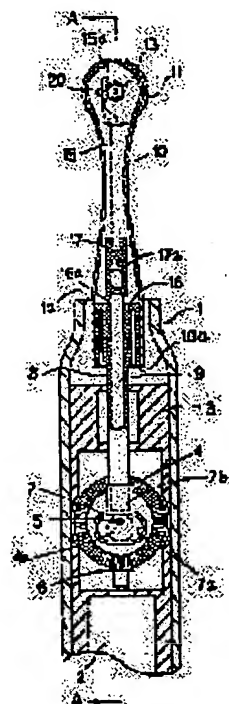
(21)Application number : 05-188251 (71)Applicant : SEIKOSHA CO LTD  
(22)Date of filing : 29.07.1993 (72)Inventor : AMAKASU MIKIO

## (54) MOTOR-DRIVEN TOOTHBRUSH

### (57) Abstract:

PURPOSE: To provide a motor-driven toothbrush capable of rotating a rotary brush body surely without disengagement between a rack and a pinion.

CONSTITUTION: A rotary brush 11 is arranged to rotate freely at the tip of an attachment 10 connected to a drive shaft 8. An extension bar 15 relatively movable with respect to the attachment 10 while it is put inside the attachment 10 and connected to a fixed shaft 9 in a case 1 when the attachment 10 is connected to the drive shaft 8. A pinion 13 is arranged at the rotary shaft of a rotary brush body 11 while a rack 15a is formed. At the rear side restriction means 20 for preventing the rack 15a from being displaced to the opposite side to the pinion 13.



## LEGAL STATUS

[Date of request for examination] 05.07.1995

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 2719556

[Date of registration] 21.11.1997

[Number of appeal against examiner's



(19)

(11) Publication number:

0'

Generated Document.

## PATENT ABSTRACTS OF JAPAN

(21) Application number: 05188251

(51) Intl. Cl.: A46B 13/02 A61C 17/22 A61

(22) Application date: 29.07.93

(30) Priority: (43) Date of application publication: 09.05.95 (84) Designated contracting states:	(71) Applicant: SEIKOSHA CO LTD (72) Inventor: AMAKASU MIKIO (74) Representative:
---	---

(54) MOTOR-DRIVEN  
TOOTHBRUSH

(57) Abstract:

**PURPOSE:** To provide a motor-driven toothbrush capable of rotating a rotary brush body surely without disengagement between a rack and a pinion.

**CONSTITUTION:** A rotary brush 11 is arranged to rotate freely at the tip of an attachment 10 connected to a drive shaft 8. An extension bar 15 relatively movable with respect to the attachment 10 while it is put inside the attachment 10 and connected to a fixed shaft 9 in a case 1 when the attachment 10 is connected to the drive shaft 8. A pinion 13 is arranged at the rotary shaft of a rotary brush body 11 while a rack 15a is formed. At the rear side restriction means 20 for preventing the rack 15a from being displaced to the opposite side to the pinion 13.

COPYRIGHT: (C)1995,JPO

